

 <p>Financial Assistance Award</p> <p>DENALI COMMISSION 510 L Street, Suite 410 Anchorage, Alaska 99501 (907) 271-1414 (phone) (907) 271-1415 (fax) www.denali.gov</p>		Award Number	01232-00		
		Award Title	Tanana Chiefs Conference - Organic Rankine Cycle Heat Recovery		
		Performance Period	January 1, 2010 through March 31, 2011		
Authority 112 Stat 1854		CFDA Number 90.100		Recipient Organization & Address University of Alaska Fairbanks PO BOX 757880 3295 COLLEGE ROAD 109 ASC Fairbanks, AK 99775-7880 Phone: (907) 474-6264 Recipient DUNS # 615245164 TIN # 926000147	
Denali Commission Finance Officer Certification		Jennifer Price 02/25/2010			
Cost Share Distribution Table					
Accounting Code	New Funding		Prior Period Funding		Total
	Denali Commission	Other Contributors	Denali Commission	Other Contributors	
95670000AL	\$250,000.00		\$0.00		\$250,000.00
	\$0.00		\$0.00		\$0.00
	\$0.00		\$0.00		\$0.00
	\$0.00		\$0.00		\$0.00
	\$0.00		\$0.00		\$0.00
Alaska Energy Authority		\$54,306.00		\$0.00	\$54,306.00
		\$0.00		\$0.00	\$0.00
		\$0.00		\$0.00	\$0.00
		\$0.00		\$0.00	\$0.00
		\$0.00		\$0.00	\$0.00
Total	\$250,000.00	\$54,306.00	\$0.00	\$0.00	\$304,306.00
This Financial Assistance Award approved by the Federal Co-Chair of the Denali Commission constitutes an obligation of federal funding.					
Award Conditions to the Financial Assistance Award Between the Denali Commission and University of Alaska Fairbanks, Alaska Center for Energy and Power For Organic Rankine Cycle Heat Recovery, Award No. 01232					
Continued on the following pages.					
Signature of Authorized Official - Denali Commission Electronically Signed			Typed Name and Title Joel Neimeyer Federal Co-Chair		Date 02/18/2010

AWARD ATTACHMENTS

University of Alaska Fairbanks

01232-00

1. Award Conditions - Tanana Chiefs Conference - Organic Rankine Cycle Heat Recovery

***Award Conditions to the Financial Assistance Award
Between the Denali Commission and University of Alaska Fairbanks, Alaska
Center for Energy and Power
For Organic Rankine Cycle Heat Recovery
Award No. 01232
January 2010***

1. Scope of Work

This award provides \$250,000 to the University of Alaska Fairbanks (UAF), Alaska Center for Energy and Power (ACEP) for Tanana Chiefs Conference (TCC) Organic Rankine Cycle (ORC) Heat Recovery project. Match funding in the amount of \$54,306 from the Alaska Energy Authority (AEA) will supplement the funding available for the equipment purchase.

Project Costs	Commission Funding	AEA Funding
ORC Unit	\$35,694	\$54,306
Shipping and Installation of ORC Unit	\$14,500	
Heat Source System, Two Pumps, Radiator	\$63,000	
Materials/Supplies (fuel, meters, sensors, etc.)	\$48,400	
Research Personnel	\$51,593	
Indirect Costs	\$36,813	
Totals	\$250,000	\$54,306

The goal of this project is to demonstrate the potential improved fuel efficiency of the diesel power plant in a village in the TCC region through the use of an Organic Rankine Cycle (ORC) system for heat recovery from engine jacket water and exhaust.

The project will include verification of the performance and reliability of a selected ORC system through laboratory testing. The testing will include a 1,000-hour reliability test of the ORC system under full load and a 50-hour test of the ORC system performance under controlled environmental conditions to evaluate the extent to which ORC technology is ready for application in the selected village diesel power plant and how to optimize the performance of the ORC system under varying load and weather conditions.

University Role to Support this Project

- Select ORC unit to procure and test as part of this project
- Controlled testing of the selected ORC system for performance verification and optimization under varying load and ambient conditions.
- Complete a 1000-hour reliability test of the system under full load.
- Plan operational parameter control scheme for optimal performance of the ORC system on the selected village diesel generator.
- Complete a preliminary study in technical feasibility and economic impact.
- Assist TCC with reports and dissemination of results.

All Commission funding is intended for use for the scope of work identified in the Award document only. Any balance of funds remaining after the full scope of work has been completed will be returned to the Denali Commission.

2. Milestones

The following milestones are identified as the major steps to be completed as part of the project. “Planned” dates for the first milestone are included here. As part of each progress report, recipients shall update the progress toward meeting these milestones (see section 7, Reporting).

Milestone	Planned		Actual		Units	Total Cost At Completion
	Start Date	End Date	Start Date	End Date		
In-Progress	01/01/2010	03/31/2011			0	\$0.00
Project Close-out	04/01/2011	06/30/2011			0	\$0.00

3. Award Performance Period

The Award performance period is January 1, 2010 through March 31, 2011. This is the period during which Award recipients can incur obligations or costs against this Award.

4. Direct and Indirect Costs

The cost principles of OMB A-21 are applicable to this Award. Indirect costs up to 5% are allowable toward this project and funded through Award #1194. Please refer to the cost principles regulations for specific details on other allowable charges under this Award.

5. Budget and Program Revisions

The Administrative Circular, 2 CFR Part 215, applies to this Award. Please refer to the Administrative Circular for specific details on revisions to this Award. The Administrative Circular requires that ACEP will inform the Commission in writing (e-mail, letter, or report) at the earliest possible date of any unanticipated project cost overrun, project schedule delays, or changes in the project scope or changed site conditions.

6. Payments

Payments under this Award will be made by electronic transfer in response to a “Request for Advance or Reimbursement”, Standard Form 270 (SF-270) submitted by ACEP. Requests for reimbursements may be made as needed. The SF-270 must be submitted to the Denali Commission via fax, e-mail (finance@denali.gov) or mail in order for payment to be processed. The form is available on the OMB website: http://www.whitehouse.gov/OMB/grants/grants_forms.html. Payments shall be made in accordance with 2 CFR Part 215. Please contact the Denali Commission’s Finance

Specialist at (907) 271-1414 for further information about submitting this form. **No interest will be accrued on these funds.**

7. Reporting

Two forms of project reporting are required under this Award, listed below. ACEP shall submit reports using the Denali Commission's on-line Project Database System, available at www.denali.gov. If there are technical limitations which may prevent the recipient from meeting this requirement, please contact the Program Manager listed in this agreement.

- a. **Progress Reports** shall be submitted on a quarterly basis. The first reporting period is January 1, 2010 to March 31, 2010, and quarterly thereafter. Reports are due within 30 days of the end of the reporting period. Progress reports shall include the following:
 - i. Total project funding, including both Denali Commission funding and other project funding sources.
 - ii. The total project expenditures for the project as of the end of the reporting period, including both Denali Commission and Other funding sources.
 - iii. Updated schedule and milestone information as identified in the Scope of Work.
 - iv. Narrative summary of the project status and accomplishments to date, and address the following questions: is the project on schedule, is the project on budget, and what actions are planned to address any project problems.
 - v. For minor repair and renovation projects or other non-construction projects, pictures should be provided of before and after, or photos that are representative of the funded activity, to the extent possible. Photos shall be provided in a digital format as part of the on-line report. A short description of the activity and names of those in the photos shall also be provided.
- b. **Federal Single Audits** shall be submitted annually, when required. In accordance with OMB Circular A-133, which requires [subpart 200] "Non-Federal entities that expend \$500,000 or more in a year in Federal awards shall have a single or program-specific audit conducted for that year in accordance with the provisions of this part [subpart 205]. The determination of when an award is expended should be based on when the activity related to the award occurs."

Recipients shall also submit single audits to the Federal Clearinghouse as designated by OMB. Information can be found on the following web-site:
<http://harvester.census.gov/sac/>

8. *Project/Award Close-Out*

The project close-out report shall be completed within 90 days of the end of the Award performance period or within 90 days of the completion of the project, whichever is earlier. Recipients must also draw down any remaining funds for expenditures incurred under this award during this 90-day period.

The project close-out report shall be submitted on-line through the Denali Commission's on-line Project Database System, available at www.denali.gov. The project close out will require the recipient to submit the following information:

- a. Final data for each item listed in paragraph 7(a) "Progress Reports".
- b. Final project expenditures itemized by the following categories: planning & design; materials & equipment; freight; labor; project administration/overhead and other expenses.
- c. Acknowledgement of support: For all non-construction projects, the Award recipient shall include an acknowledgement of the Government's support for the project(s) developed under this Award. The allowable format shall be use of Denali Commission logo on any printed materials referencing the emerging technologies program and mention in any public presentations. Costs associated with this requirement shall be paid out of the project funding received by the Award recipient from the Denali Commission.

9. *Public Policy Laws and Assurances*

Award Recipients are required to comply with the public policy laws and assurances on SF 424b. Some of the laws are highlighted below for your reference.

To the maximum extent practicable, considering applicable laws, Funding Recipients shall accomplish the project contemplated by the Award using local Alaska firms and labor.

No portion of this award may be used for lobbying or propaganda purposes as prohibited by 18 U.S.C. Section 1913 or Section 607(a) of Public Law 96-74.

Project level environmental reviews in accordance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) are required for each project undertaken with Denali Commission funds.

10. *Non-Compliance with Award Conditions*

Recipients not in compliance with the terms and conditions of this Financial Assistance Award will be notified by the Denali Commission. The Denali Commission will work with the recipient to identify the steps necessary to bring them back into compliance, and will establish an appropriate time frame for the corrections to be made. If the corrections

have not been made by the deadline, the Denali Commission reserves the right to either suspend or unilaterally terminate the Financial Assistance Award for non-performance.

11. Program Manager, Financial Manager & Other Contact Information

Denali Commission	Alaska Center for Energy and Power
Denali Daniels Program Manager 510 L Street, Suite 410 Anchorage, AK 99501 Phone: 907-271-1189 Fax: 907-271-1415 E-mail: ddaniels@denali.gov	Gwen Holdmann Project Manager 451 Duckering Building Fairbanks, Alaska 99775-5880 Phone: 907-590-4577 Fax: 907-474-6686 Email: gwen.holdmann@uaf.edu
Betty Sorensen Grants Administrator 510 L Street, Suite 410 Anchorage, AK 99501 Phone: 907-271-3415 Fax: 907-271-1415 E-mail: bsorensen@denali.gov	Maggie Griscavage Financial Contact 3295 College Road, 109 ASC Fairbanks, AK 99775-7880 Phone: 907-474-6446 Fax: 907-474-5506 Email: gmgriscavage@alaska.edu

12. Other Project Specific Paragraphs

In addition to reporting quarterly, ACEP shall meet twice annually with the Commission to report lessons learned and project status.